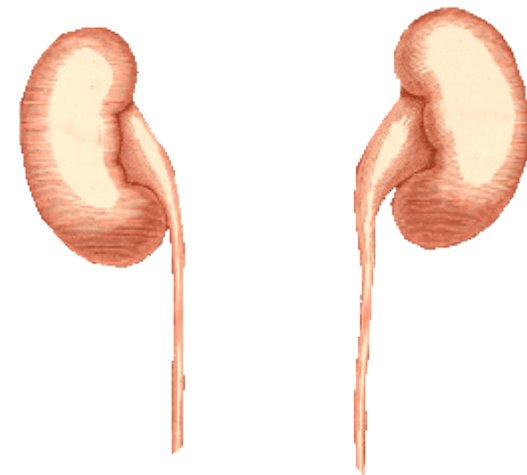




Royal Infirmary of Edinburgh
Department of Renal Medicine

Eating well for your kidneys



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This booklet is designed to give you an introduction into the importance of diet in chronic kidney disease and gives you some tips on how to follow a healthy balanced diet and take regular exercise.

Some basic information related to your kidneys is included such as salt, potassium and phosphate advice. If your doctor or dietitian recommend that you follow a low potassium or low phosphate diet you will be given more detailed advice.

We hope you find this booklet informative and helpful in making small changes to follow a healthier lifestyle with chronic kidney disease.

Table of Contents	Page
Why is diet important?	4-5
Eating a balanced diet	6-7
Maintaining a healthy weight	8-9
Salt	10-11
Potassium & Phosphate	12-15
Exercise	16-17
Alcohol	18
Helpful Resources	19-27

Why is diet important?

Attention to diet and lifestyle is important when you have chronic kidney disease.

Keeping to the right weight, making healthy food choices and controlling blood pressure can all help to protect the health of your kidneys.

Your kidneys remove waste products and extra fluid from your blood. When your kidneys are not working properly these waste products and fluid can build up in your body. Some foods produce more waste products than others so your diet can be an important part of your medical treatment.

Sometimes, early kidney disease may progress to more advanced kidney disease. If you follow medical and dietary advice you may be able to slow this process down.



My Goals

1.

2.

3.

Your Blood Pressure and Weight

Date	Blood Pressure		Body measurements	
	Systolic high number	Diastolic low number	Weight kg	BMI (kg/m ²)

There is no specific 'Renal Diet'

During the early stages of chronic kidney disease, it is important that you try to have a healthy, well balanced diet. Staying physically active and taking all your prescribed medicines are also important.

Your doctor may recommend a special diet depending on the stage of your kidney disease. Your doctor may refer you to a dietitian who has expert knowledge about diet. The main goal of this diet is to keep you healthy and the advice you receive will be tailored to your individual needs.



Eating a balanced diet

A balanced diet contains a variety of foods from the 5 different food groups. It is important to make sure you get the right balance of energy (calories) and protein from food, as well as essential vitamins and minerals.

The 5 food groups are:

1. Starchy carbohydrates
2. Fruit and vegetables
3. Beans, fish, meat and other proteins
4. Dairy and alternatives
5. Oils and fats

The Eatwell Guide provides a visual guide of how much of each food group should be included in your diet. Food high in saturated fat and sugar should be eaten less often and in small amounts.

All food and drinks consumed contribute to your total energy intake which is counted in calories.

The average recommended intake per day is 2000kcal for women and 2500kcal for men

Where Can I Find More Information?

The Internet

There is a wealth of information online. Try to look for well known organisations and sites as not all information on the internet is reliable. Some examples of good websites would be NHS Choices , EdRen and the British Dietetic Association Food Facts.

The library

Many good books have been published for renal patients, their families and carers. These cover a wide variety of topics, including diet. There are also renal recipe books available but you should be able to adapt your favourite recipes without having to buy a renal recipe book.

A dietitian

Dietitians will provide more detailed advice if necessary. If you need more specific advice about your diet and chronic kidney disease this will be tailored to your individual needs based on your level of kidney function, your blood tests and your lifestyle.

And finally.....

We hope the information in this booklet has been useful, and has given you some food for thought. Remember, please ask your doctor or nurse to refer you to a dietitian if you have any concerns about your diet.

Alcohol



If you normally drink alcohol, this is something that you probably want to know about. Alcohol in moderation is the key for most people.

What is the advice about alcohol?

Men and women are advised to drink no more than 14 units of alcohol per week

One Unit of alcohol =

Beer	1/2 pint	250ml
Wine	1 small glass	76ml
Spirit	1 measure	25ml
Alcopop	1 standard bottle	250ml
Cider	Less than 1/2 pint	218ml

Try to spread your drinking throughout the week, and have at least 1-2 alcohol free days per week.

More information and advice can be found on the NHS Choices website.



Source: Adapted with permission from Public Health England in association with the Welsh Government, Food Standards Scotland and the Food Standards Agency in Northern Ireland © Crown copyright 2016

Maintaining a healthy weight

It is important that you maintain a healthy weight when you have chronic kidney disease. Your Body Mass Index (BMI) is an easy way to check if you are carrying too much weight or not. You can calculate your BMI on the NHS Choices website or ask your doctor or nurse.

What if I am overweight?

Being overweight can increase your blood pressure and puts you at risk of other long term health conditions such as diabetes, heart disease and stroke. Eating more calories than you need will result in weight gain. Even a small amount of weight loss will help to protect your heart and kidneys, help control your blood pressure and may prevent or help control diabetes.

There are lots of things you can do to control your weight, such as:

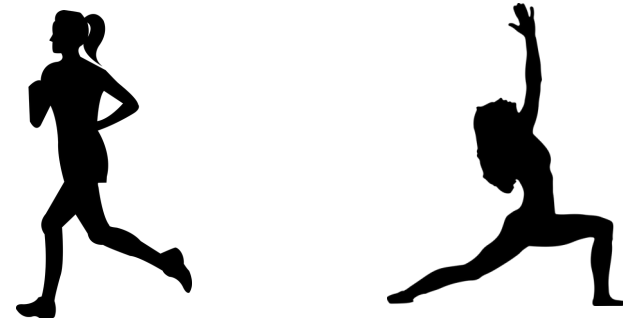
- Eat regular, planned meals
- Limit high calorie snacks
- Reduce foods that are high in fat and sugar
- Choose lower fat cooking methods such as grilling, baking or boiling
- Eat plenty of fruit and vegetables
- Eat more filling foods such as bread, pasta and rice
- Take regular exercise

What is the best exercise to choose?

Regular, low-intensity exercise within your own capabilities is the best way to start. If it has been a while since you exercised build up slowly from 5 minutes to 20minutes. Aim to do 3 to 5 x a week.

Once you are more used to regular exercise you could try more endurance exercise such as brisk walking, cycling, dancing or swimming.

Exercises which are good for improving flexibility and mobility are bowls, pilates, tai chi or yoga.



Tip! Remember, you do not have to push yourself too hard to see the benefits of exercise – it just has to be regular.

Exercise

Regular exercise is beneficial to everyone regardless of age or physical ability. It is especially important if you have kidney disease as regular exercise has lots of benefits. As well as improving general health and well-being it helps blood pressure, keeps your heart and muscles strong and healthy and helps control weight.

So, what is stopping you?

Ideally, exercise should be part of your daily routine and, with time, will become easy and enjoyable.

Try walking further instead of taking the bus, or climb the stairs instead of using the lift at work. Try to involve all the family.

Example of integrated daily activity

Mon	Walked to shops and back
Tues	Yoga class with friend
Wed	Cycled to work and back
Thurs	Brisk walk with dog
Fri	Swimming with the kids

If you need to lose weight a steady weight loss of **1/2 to 1kg (1-2lb) per week** is the safest way to lose weight. If you need more help speak with your GP, practice nurse or look on the **NHS Choices website**.

What if I am losing weight?

Sometimes having chronic kidney disease can affect your appetite. If you have lost your **appetite** or you are rapidly losing weight then please highlight this to your doctor as you may need advice from a dietitian.

Energy or Calories

Most of the calories in our diet come from carbohydrates (sugar and starches) and fat. It is important to have the right amount of calories in your diet to keep you a healthy weight (not under or overweight).

Protein

A certain amount of protein is required by your body for growth, repair of muscle and tissue and fighting infection. Many people eat much more protein than they need and this can be a problem in chronic kidney disease. **Urea** is a waste product of protein and this level can rise in the blood making you feel unwell. If this is the case you may need advice from a dietitian to make sure you have the balance of calories and protein right for your level of kidney function.

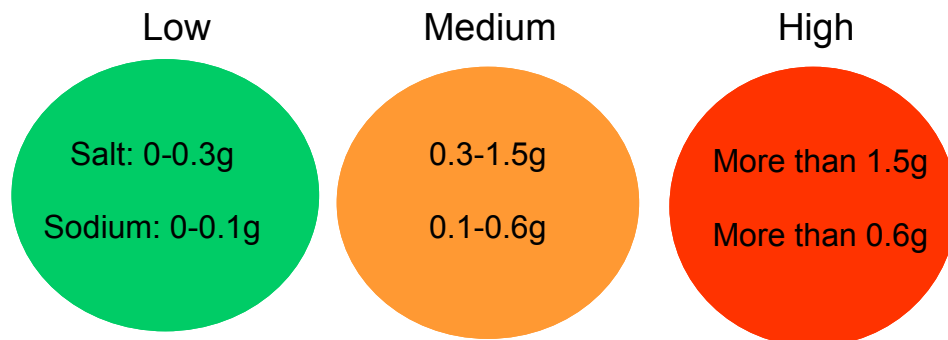
Dietary Considerations

Salt or Sodium

A diet high in salt is linked with high blood pressure and heart disease. Most people in the UK eat much more salt than they need and it is therefore advisable that the whole family cuts down their salt intake. The daily recommended limit for salt is **6g (about 1 teaspoon) a day** but the average intake is almost double this.

Some salt is naturally present in foods but most of the salt we eat is already added to foods such as processed foods. The rest of the salt we eat comes from that added to food at the table and during cooking.

How much salt is too much per 100g?



Phosphate additives

There is growing evidence that a high phosphate diet is not recommended in chronic kidney disease and phosphate additives in foods are very easily absorbed by the body. The best way to reduce phosphate additives is to reduce processed foods and drinks. Check food labels for **PHOS** additives.

Phosphate Additives	
E338	Phosphoric acid
E339	Sodium Phosphate
E340	Potassium phosphate
E341	Calcium phosphate
E343	Magnesium Phosphate
E450	Diphosphates
E451	Triphosphates
E452	Polyphosphates

Example:

Ingredients: Pork (61%), Water, Rusk (contains Wheat Flour), Wheat Flour, Salt, Dextrose, Sugar, Stabiliser (Disodium Diphosphate), Black Pepper, Yeast Extract, Mace, Spice Extracts (contain Pepper, Nutmeg, Mace, Cayenne, Ginger), Nutmeg, Sage Extract, Wheat Flour contains: Wheat Flour, Calcium Carbonate, Iron, Niacin, Thiamin, Filled into U.K, or non-U.K, beef collagen casings

Dietary Considerations

Phosphate:

Phosphate is a mineral that helps to keep your bones and teeth healthy. When your kidneys are not working normally the level of phosphate in your blood can rise. Itchy skin and red eyes can be a sign of a high phosphate levels. The normal blood level for phosphate is 0.8 - 1.5mmol/l.

Phosphate is present in many foods in particular:

- Processed foods especially processed meats
- Milk, yoghurts and cheese especially hard cheeses, cheese spread and processed cheese
- Nuts and seeds
- Offal
- Oily fish eg; mackerel, sardines
- Shellfish eg; prawns, scampi

Do I need to follow a low phosphate diet?

If you eat a lot of foods from the above list, especially processed foods, it would be a good idea to try to eat these foods less often. This would also help to reduce the amount of salt in your diet. If you need to follow a more detailed low phosphate diet your doctor should refer you to a specialist renal dietitian who can give you individualised advice regarding this.

To reduce the amount of salt you eat:

- Look at food labels to make lower salt choices (or use the SaltSwitch App)
- Do not to add salt at the table
- Cook without salt
- Cut down on manufactured and processed foods

Warning: Do not use salt substitutes such as Losalt or Saxa So Low as they contain potassium chloride. These products are not suitable for people with kidney disease.

Tip! Your taste buds will quickly adapt to using less salt on your food. You will find that after about a month food will start to taste much better

Dietary Considerations

Your blood **potassium** and **phosphate** levels will be checked regularly. If your levels are higher than normal then you may need to be referred to a specialist renal dietitian.

Potassium

Potassium is a mineral that helps to keep your heart beating regularly and your muscles working. Your kidneys normally remove extra potassium from your blood. If your kidneys are not working well potassium levels in your blood can rise. The normal blood levels for potassium are **3.5 - 5.0 mmol/l ***.

Where does potassium come from?

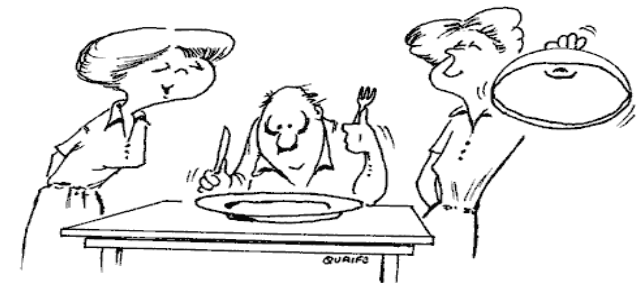
Potassium is found in lots of foods and you only need to limit the potassium in your diet if you have been advised to do this by your doctor or dietitian.

If this is the case you will need individualised advice and information to help you to do this.

Examples of high potassium foods:-

Milk (a daily amount would be advised if required)
Fruits such as bananas and dried fruit
Vegetables such as tomatoes, chips, baked potatoes
Snacks such as chocolate, crisps, nuts
Drinks such as coffee, malted drinks, fruit juices, smoothies, beer, wine
Salt substitutes

This is not an exhaustive list and you would be given more detailed advice if you need to follow a low potassium diet.



...and this dish is totally potassium-free!

* based on the laboratory reference ranges for adults in NHS Lothian